

REMARKS

This application has been carefully reviewed in light of the Office Action dated July 28, 2004. Claims 12, 4 to 9, 11, 12, 14 to 19, 21 and 23 are pending in the application, of which Claims 1, 11, 21 and 23 are independent. Reconsideration and further examination are respectfully requested.

Claims 1, 6, 7, 10, 11, 16, 17 and 20 to 24 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 7,221,465 (Shimada). Claims 2 and 12 were rejected under 35 U.S.C. § 103(a) over Shimada in view of JP 2000-259378 (Mori). Claims 3 to 5 and 13 to 15 were rejected under 35 U.S.C. § 103(a) over Shimada in view of U.S. Patent No. 6,552,813 (Yacoub). Claims 8, 9, 18 and 19 were rejected under 35 U.S.C. § 103(a) over Shimada in view of JP 9-081338 (Nishiwaki). Reconsideration and withdrawal of this rejection are respectfully requested.

The present invention concerns a process of "substitution output" in which a copy job is transferred to another printer when trouble occurs in a first printer. In particular, the present invention enables substitution of output from a Multi-Function Printer (MFP) to another printer (e.g. Single-Function printer: SFP). Generally, the print job of the SFP is transmitted from an information processing device such as a host computer or a server. Therefore, the information processing device has information for the print job. On the other hand, when the copy job is executed in the MFP, other information processing devices do not have information of the job since the job is executed in the MFP without receiving print data from the information processing devices. In such a case, the print data is, for example, generated by a scanner that is part of the MFP. Also, when trouble occurs in the MFP, the MFP may not be able to transfer the copy job as a print job depending on the type of trouble encountered by the MFP.

According to the present invention, an information processing apparatus includes an acquisition means for acquiring information of an output job to be executed by the MFP before occurrence of any problem that disturbs execution of the copy job. The information processing apparatus further includes a substitution output means for controlling a second output apparatus to execute a substitution print process based on the output job information when an obstacle is encountered during execution of the copy job in the first output apparatus. The information processing apparatus further includes an update means for reflecting the first output job information onto a second job output queue of the second output apparatus and a substitution output means for transmitting a job on the basis of the second job output queue that has been updated.

Therefore, when utilizing an information processing apparatus in accordance with the present invention, when a problem occurs in the MFP, the information processing apparatus can transfer information of the copy job to another printer (e.g. the SFP) without any additional communications with the problematic MFP.

Turning to specific claim language, amended independent Claim 1 is directed to an output management method for an information processing apparatus, which can communicate with a first output apparatus having a copying function of printing based on a scanned document image, and a second output apparatus having a print function of printing image data transmitted from an external device in a predetermined format, and comprises a server function of managing output jobs in the first and second output apparatuses. The method includes a first acquisition step of acquiring first output job information of a copy job to be executed by the first output apparatus before an occurrence of any obstacle that disturbs execution of a copy job; a detection step of detecting the occurrence of any obstacle that disturbs execution of a copy job during

execution of a copy job in the first output apparatus; a substitution output step of controlling the second output apparatus to execute a substitution print process based on the first output job information upon detection of occurrence of the obstacle during execution of the copy job in the first output apparatus in the detection step; and an updating step of reflecting the first output job information onto a second job output queue of the second output apparatus. The substitution output step includes a step of transmitting a job on the basis of the second job output queue updated in the updating step.

Amended independent Claims 11, 21 and 23 are directed to an apparatus, computer-executable program stored on a computer-readable storage medium and a computer-readable storage medium storing a computer-executable program, respectively, substantially in accordance with the method of Claim 1.

Applicant respectfully submits that the applied reference, namely Shimada, is not seen to disclose or to suggest the features of independent Claims 1, 11, 21 and 23. In particular, Shimada is not seen to disclose or to suggest at least the features of acquiring first output job information of a copy job to be executed by a first output apparatus before an occurrence of any obstacle that disturbs execution of a copy, controlling the second output apparatus to execute a substitution print process based on the first output job information upon detection of an obstacle during execution of the copy job in the first output apparatus in the detection step and reflecting the first output job information onto a second job output queue of the second output apparatus including transmitting a job on the basis of the updated second job output queue.

In contrast, Shimada discloses an image output system 10 comprising a client personal computer 20, printers 31 and 32, a copying machine 40, and a server 60, which are connected with one another via a network 70. (See Shimada Fig. 1). The server 60 performs

alternate printing using the second printer 32 when a problem occurs, for example, when the first printer 31 is printing. (See Shimada, Column 2, lines 36 to 41). When performing this alternate print, the server converts image data and then matches the color reproduction of color image outputted by the first printer and the color reproduction of color image outputted alternately by the second printer. (See Shimada, Column 2, lines 49 to 54).

Therefore, Shimada discloses that when a print job is executed, a server receives a print data from a client and transfers the print data to a printer. If a problem occurs in the printer, the server transfers the print data to another printer. However, in a case that the problem occurs in a device that both generates print data and generates a printout using that data, such as an MFP, the server must receive the print data as transmitted by the device and transfer the received print data to another printer when a problem occurs.

However, Shimada fails to disclose or suggest acquiring information of a copy job to be executed by the MFP before occurrence of any obstacle that disturbs execution of the copy job. Using such a feature, the information processing apparatus can transfer information of the copy job to another printer without communicating with the MFP after the execution of the copy job is disturbed. Therefore, the information processing apparatus can execute a substitution output even if the MFP cannot communicate with the information processing apparatus because of the copy job problem.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

CONCLUSION

No claim fees are believed due; however, should it be determined that additional claim fees are required, the Director is hereby authorized to charge such fees to Deposit Account 50-3939.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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